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EXAMINER

TRAN, NHAN T

ART UNIT PAPER NUMBER

2615

DATE MAILED: 01/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/629,982

Applicant(s)

KAKU, JUNYA

Examiner

Nhan T. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 5-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 10/31/2005 with respect to new claims 9 & 10 have been considered but are moot in view of the new ground(s) of rejection.
2. Applicant's arguments filed 10/31/2005 with respect to claims 5-8 have been fully considered but they are not persuasive.

Regarding to independent claim 5, the Applicant asserts that:

- i. According to Mitsuhashi et al., when a recording process is completed, a display process of the real-time moving image on the EE mode is resumed (remarks, page 7).
- ii. Mitsuhashi et al. and Anderson fail to disclose or remotely suggest anything about a constitution of the claim 5 in which the display process of the recorded object scene image prior to resuming the display process of the real-time object scene image is permitted or prohibited depending upon the operating time period of the instruction key, and therefore, quick confirmation of the recorded object scene image and quick resumption of the framing of the object scene are accomplished (remarks, page 8).

In response, the Examiner respectfully disagrees with the Applicant for the following reasons:

- i. It is not true when a recording process is completed (Mitsuhashi, step S06, Fig. 2), a display process of the real-time moving image on the EE mode (step

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S01) is resumed as asserted by the Applicant. It is clear in Fig. 2 and col. 7, lines 60-65 that there is a condition for resuming to the EE mode via the control loop at step S06. The EE mode is resumed only if the release button is not pushed; otherwise, the EE mode is not resumed.

ii. The Examiner understands the Applicant's argument according to the assertion (ii) above. However, such limitations are not specifically claimed in claim 5. What is claimed in claim 5 is "...a determiner for determining, prior to starting a display process of said second displayer, whether or not said instruction key is shifted from the operative state to the non-operative state, wherein the display process of said second displayer is permitted when a determination result of said determiner is negative, and the display process of said second displayer is prohibited when the determination result of said determination result is affirmative." As understood from claim 5, the display process of the second displayer (for reviewing the captured image) is permitted or prohibited but it does not mean that the display process of the first displayer (for live view of an image) is permitted or prohibited during a specific period of time. Even though the claim recites "a first displayer for displaying on a monitor a moving image based on the object scene images repeated outputted from said outputted when said instruction key is in the non-operative state," it does not mean "...only when said instruction key is in the non-operative state." At least from this interpretation, the above mentioned limitations are met by Mitsuhashi shown in Fig. 2 and **col. 6, line 58 – col. 7, line 6** in which **the operative state is maintained by slightly releasing the button to the first level from the second level without fully releasing the button to the non-**

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pushed level. After 2 seconds elapsed, the recorded image is displayed on the display for review (step S09) until the button is fully released to the non-pushed level. According to Mitsuhashi, even in the worst case scenario in which the EE mode is resumed during the 2 seconds, the teaching of Mitsuhashi still meets the above mentioned claim limitations because the claim does not require a condition to prohibit such the resumption of the live view mode during the time period when the button is still pushed down. As consistently stated in the previous Office Action and during the phone interview on 5/17/2005, the operative state of the release button in Mitsuhashi is represented by both first and second pushed levels while the non-operative state of the release button is indicated by non-pushed level. The present claim 5 is not specifically clarified to distinguish from the teaching of Mitsuhashi. Furthermore, Anderson is not relied upon for the teaching already taught by Mitsuhashi.

In view of the above, the rejection of claims 5-8 is maintained.

### ***Specification***

3. The title of the invention "electronic camera" is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitsuhashi et al (US 5,497,193) in view of Anderson (US 6,512,548).

Regarding claim 5, Mitsuhashi discloses an electronic camera (Fig. 1), comprising:

an outputter (13) for repeatedly outputting an object scene image (e.g., for displaying moving images in live-view mode as an electronic viewfinder on display unit 14 or so called EE mode) when an instruction key (shutter button 20) is in non-operative state (non-pushed level) and outputting a single frame of object scene image (for recording into memory 19) when instruction key is in an operative state (second pushed level) (see Figs. 1 & 2; col. 1, lines 25-39; col. 6, line 20 – col. 7, line 15, *wherein both first and second pushed levels are the operative state of the shutter button 20*);

first displayer (display 14 with switch 16 in contact 1 for EE mode) for displaying on a monitor (14) a moving image based on the object scene images repeatedly outputted from said outputter when said instruction key is in the non-operative state (non-pushed level) (see Figs. 1 & 2; col. 7, lines 34-35 and col. 6, lines 16-29);

a recorder (19) for recording process on the single frame (a still image) of the object scene image outputted from said outputter when said instruction key is in the operative state (second pushed level) (see col. 6, lines 35-49 and col. 7, lines 43-49);

a second displayer (display 14 with switch 16 in contact 2 for review mode) for displaying on said monitor a still image based on the object scene image to be

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subjected to the recording process by said recorder (see Figs. 1 & 2; col. 6, line 57 – col. 7, line 15);

a determiner (control 15) for determining, prior to starting a display process of said second displayer, whether or not said instruction key is shifted from the operative state (first and/or second pushed levels) to the non-operative state (non-pushed level), wherein the display process of said second displayer is permitted when a determination result of said determiner is negative (the shutter button is maintained at a pushed level; that is shifting the shutter button 20 to first level **without releasing the shutter button**; see col. 6, lines 57 – col. 7, line 15, wherein the step S06 is switched to step S04 if the shutter button is shifted to the first level **without releasing the shutter button**) and the display process of said second display is prohibited when the determination result of said determiner of said determiner is affirmative (shutter button is fully released, e.g., non-pushed level, to go back to EE mode in step S01 for displaying live-view images as electronic viewfinder; see Fig. 2 and col. 7, lines 49-55).

Mitsubishi is just silent about that the outputter outputs low resolution images (moving images) for live view on the display and outputs a higher resolution image (a still image) for recording into the memory. However, as taught by Anderson, it is well known in the art that frames of raw image data are sequentially captured by an imaging device (114) and displayed at a *reduced resolution* suitable for LCD screen (402) in a live-view mode before a shutter button (418) is pressed. When shutter button is pressed for capturing an image, the raw image data is captured at a higher resolution

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that has been set by a user prior to the photographing session (see Fig. 6 and col. 7, lines 7-27).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Mitsuhashi and Anderson for displaying low resolution images on the display unit in a live view mode when the shutter button is not pressed, and for capturing a higher resolution image set by the user prior to a photography session when the shutter button is pressed in a conventional configuration of a digital camera so as to reduce image processing time during the live view mode and to provide high quality image during the recording mode.

Regarding claim 6, Mitsuhashi clearly discloses that the captured still image data is displayed on the display unit as a review image for as long as the shutter button is maintained in the operative state (col. 7, lines 4-6).

Regarding claim 7, Mitsuhashi is silent about the feature recited in claim 7. Anderson further teaches a third displayer for displaying a default image (i.e., a blank image data such as a flicker or a very brief freezing image) on the display unit for a predetermined time period when the shutter button is pressed to capture the image (see Anderson, col. 10, lines 1-5). Therefore, it would have been obvious to configure the electronic camera in Mitsuhashi to include a third displayer for displaying a brief default image on the monitor when the shutter button is pressed as taught by Anderson so as

to indicate a visual message to the user that the image has been captured and recorded.

Regarding claim 8, also taught by Mitsuhashi in col. 4, lines 42-44 and/or Anderson in col. 7, lines 24-28, a memory (RAM) is used for temporarily storing the image data output from the imaging device for recording when the shutter button is pressed and that the stored image data either directly or indirectly is read out for displaying on the display unit.

Regarding claim 10, see the analysis of claim 5 for the same limitations. Although Mitsuhashi does not teach that the second displayer (for reviewing an image) for displaying on the monitor an unrecorded (buffered) still image based on the object scene to be subjected to the recording process by said recorder, the lack of this teaching is compensated by Anderson. According to Anderson, there are two options to retrieve the still image (i.e., a frame) for displayed. When an instant review mode is enabled, it is determined if the frame buffer (536) still contains the data for the last image taken. If the image data is available in the frame buffer, then this data is provided to the LCD screen for reviewing. If the image data is no longer in the frame buffer, then image data stored in a main memory is retrieved and displayed. See Anderson; col. 10, lines 42-55 and col. 9, lines 13-45.

Therefore, it would have been obvious to one of ordinary skill in the art to modify the electronic camera in Mitsuhashi to include the teaching of Anderson for displaying

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an unrecorded still image (buffered still image) on a monitor at a high priority when the second displayer (review mode) is enabled so that image retrieving time would be reduced.

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mitsuhashi et al (US 5,497,193) and Anderson (US 6,512,548) as applied to claim 5 and in further view of Mizutani et al (US 6,674,464 B1).

Regarding claim 9, Mitsuhashi and Anderson are just silent about each of the first displayer and second displayer carrying out a resolution converting process (i.e., NTSC encoder) corresponding to the resolution of the noticed object scene image. Mizutani teaches an NTSC encoder (23, 23a shown in Figs. 3 and 4) to convert all image signals read out from a memory into a suitable format (including resolution) for matching to resolution of the display/monitor. See Mizutani, col. 6, lines 58-65 and col. 12, lines 16-24.

Therefore, it would have been obvious to one of ordinary skill in the art to easily implement the first and second displayer to carry out a resolution converting process (i.e., by NTSC encoder) on the object scene image to a matched resolution of the display/monitor to provide better reproduction of the image signals on the display/monitor.

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (571) 272-7371. The examiner can normally be reached on Monday - Thursday, 7:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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